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09/095,323	06/10/1998	MICHAEL D. LAUFER	031201-009	9521

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EXAMINER

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3739	

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 22

Application Number: 09/095,323

Filing Date: December 11, 2001

Appellant(s): Laufer

Richard R. Batt

For Appellant

This is in response to the appeal brief filed December 11, 2001.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: the uses of the indefiniteness of claims 29, 30, 34, and 35 is moot as the examiner has withdrawn this rejection.

(7) *Grouping of Claims*

The rejection of claims s 28-37 and 50 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

Number	Name	Date
5,053,033	Clarke	October 1, 1991
W097/37715	Waksman et al	October 16, 1997

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

The rejections under 35 U.S.C. 112, second paragraph of claims 29, 30, 34, and 35 have been withdrawn.

Claims 28-37 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke in combination with Waksman et al. Clarke teaches a method of killing smooth muscle cells (see column 2, lines 16-50) using ultraviolet radiation in the 240-280 nanometer range (see the paragraph bridging columns 2 and 3, for example). Waksman et al teach the well known equivalence that treatments for blood vessels to prevent excess proliferation of smooth muscle cells (the paragraph bridging pages 3 and 4) is also useful on ~~trachea~~^{he a} and bronchi (see page 5, lines 25-31). Thus it would have been obvious to the artisan of ordinary skill to employ the method in bronchial tissue, since these are equivalents and are composed of smooth muscle cells that respond to the same irradiative treatments as blood vessels, as taught by Waksman et al, and to employ a radioactive source, since this is a notorious equivalent to laser radiation for killing smooth muscle cells, official notice of which has already been taken, and to use other wavelengths, since the media is highly absorbant, official notice of which has already been taken; to employ the method on long lesions, which would require movement while irradiating, since lesions which cover long portions must be treated as well, and to employ the method in an asthmatic lung, since there is no indication that the smooth muscle cells therein would respond any differently than in a non-asthmatic lung, thus producing a method such as claimed.

(11) Response to Argument

A) The rejection under 35 USC 112 second paragraph has been withdrawn.

The arguments regarding definiteness are moot

B) Claims 28-37 and 50 are unpatentable under 35 U.S.C. 103 as obvious over Clarke in combination with Waksman et al.

Since the claims stand or fall together, the rejections will be discussed only as they apply to claim 50, the broadest claim.

Appellant alleges that a *prima facie* case of obviousness has not been established by the examiner, purportedly because there is no motivation to modify the reference and because there is no reasonable expectation of success. The examiner must respectfully disagree. In evaluating the teachings of a reference the evaluation must be made not merely in light of the specific teachings of the reference, but also the inferences and one having ordinary skill in the art would have reasonably been expected to draw therefrom (see *In re Preda*, 401 F. 2d 825, 159 USPQ 342 (CCPA 1968)) with those of ordinary skill in the art being attributed with skill therein, not a lack thereof (see *In re Sovish* 769 F. 2d 738, 226, USPQ 771 (Fed Cir 1985)). Clarke clearly teaches that his method disrupts the proliferation of smooth muscle cells (see the abstract). Claim 50, to which Clarke has been applied, recites "a method for treating a lung to affect lung tissue comprising: irradiating the wall of an airway of the lung with a wavelength and intensity which over time, causes debulking of the lung tissue and prevents the lung tissue from replicating". Thus any condition that would be treated by the claimed irradiation step, such as, a lung-tumor of smooth muscle cells, for example or a group of cells proliferating due to an injury, such as being burned by an inhaled ember, for example is encompassed by the claim. Appellant has presented no

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evidence to counter the examiners showing that this irradiation is used to kill smooth muscle cells, and the reasonable extension thereof that other smooth muscles cell would be similarly affected by this irradiation with ultraviolet light. Thus the examiner asserts that Clarke even alone, would suggest to one having ordinary skill (Sovish) by its teachings and inferences (Preda) the claimed method. However, even assuming arguendo, that Clarke was insufficient to fulfill the motivation and expectation of success requirements, clearly the teachings of Waksman et al fill any perceived gaps. It is undeniable that Waksman et al teach an irradiative method to combat excessive smooth muscle cell proliferation in blood vessels. It is equally undeniable that Waksman et al teach that the method can be used in the ~~trachea~~ ^{he~~a~~} or bronchi as well as ~~on~~ ⁱⁿ blood vessels walls. Thus Appellants assertions to the contrary must fail.

In an attempt to bolster his position, appellant notes the existance of various non-smooth muscle cell structures in the lung, but does not provide reasoning as to how the smooth muscle cells would avoid being affected by the radiation, especially given the presence of other non-smooth muscle cells structures in blood vessels as well (see Clarke, column 5, lines 44-46). However regardless of the number of distinctions appellant can draw between the enviornment of vasucular smooth muscle cells and bronchial smooth muscle cells, their equivalence in irradiative treatment has still been notorious in the art, as shown by Waksman et al. Thus these arguments are not convincing.

- 2) Answers to arguments that the examiner is using impermissible hindsight.

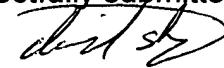
The examiners rejection is clearly proper and devoid of any impermissible hindsight as shown by the unequivocal teaching of Waksman et al as to the level of knowledge of one having ordinary skill at the time appellants invention was made. Thus all the limitations of claim 50 being met, and all the claims standing or falling together, appellants arguments are not convincing.

Conclusion

It is the examiner's firm opinion that the appealed claims are not patentable for the reasons argued above. Appellant has presented no convincing argument as to why the rejections set forth above are not obvious or proper. Therefore, it is respectfully submitted that the Final Rejection be affirmed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



DAVID M. SHAY
PRIMARY EXAMINER
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David Shay:bhw
June 18, 2002

Conferees



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